

CLAIMS

1. A method of gas filling and sealing of a duct (7) intended to be filled with gas and positioned in a container (1) of a collapsible type, said duct (7) being defined by two opposite side walls (2) which are joined along a connecting portion (4), and comprising an inlet (15) arranged in one of the side walls (2),
5 characterised by
clamping a part of the container (1), which part comprises said inlet (15), between an abutment (17) and a gas module (20) which is axially movable towards the abutment (17), in such a manner that one of the two
10 side walls (2) included in the duct (7) is allowed, in response to a gas flow supplied from the gas module (20) and entering the duct (7) through said inlet (15), to bulge to form a free passage into the duct (7) for filling the same with gas, and
15 after completion of the gas filling, sealing the duct (7).
2. A method as claimed in claim 1, in which said part of the container (1) is clamped by axial displacement of a nozzle and a packing means (22), which is
20 arranged outside the same and associated with the gas module (20), in relation to said abutment (17).
3. A method as claimed in claim 1, in which the abutment (17) is formed with a recess (19) in its side facing the container (1) to allow said bulge.
4. A method as claimed in claim 1, in which the duct (7) is sealed by applying heat and pressure to the part of the duct (7) which abuts against the abutment (17).
5. A device for gas filling and sealing of a duct (7) intended to be filled with gas and positioned in a container (1) of a collapsible type, said duct (7) being defined by two opposite side walls (2), which are joined
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along a common connecting portion (4), and comprising an inlet (15) arranged in one of the side walls (2), characterised by an abutment (17), and

5 a gas module (20) which is axially applicable to the abutment (17) for abutment against a part of the container (1) and the inlet (15) arranged therein, the gas module (20) being arranged to fill the duct (7) with gas through the inlet (15) and to seal the duct after 10 completion of the gas filling.

6. A device as claimed in claim 5, in which the gas module (20) comprises a nozzle which is applicable to the inlet (15) for supplying gas to the duct (7).

7. A device as claimed in claim 6, in which the 15 gas module (20) comprises a packing means (22) which is arranged outside the nozzle and applicable to the abutment (17) to seal around the nozzle.

8. A device as claimed in claims 6 and 7, in which the 20 nozzle and the packing means (22) are arranged on a common unit in the form of a first piston rod (21), said first piston rod (21) comprising a bore (23) for supplying gas to the duct (7) through the nozzle.

9. A device as claimed in claim 5, in which the gas module (20) comprises a sealing means (24) which is 25 adapted, after filling the duct (7) arranged in the container (1) with gas, to disconnect the inlet (15) from the duct (7) by sealing.

10. A device as claimed in claim 9, in which the sealing means (24) comprises a mandrel (26) which is 30 axially engageable with a heating jaw (25).

11. A device as claimed in claim 10, in which the heating jaw (25) is arranged outside the abutment (17).

12. A device as claimed in claim 9, in which the 35 mandrel (26) is arranged as a second piston rod (27) outside the first piston rod (21).

13. A device as claimed in claim 9, in which the mandrel (26) is arranged outside the abutment (17).

14. A device as claimed in claim 9, in which the heating jaw (25) is arranged as a second piston rod (27) outside the first piston rod (21).

15. A device as claimed in claim 8, 12 or 14, in
5 which the first piston rod (21) comprises an external lug (30) which, during a return stroke of the first piston rod (21), is engageable with the second piston rod (27) for returning the same.

16. A device as claimed in claim 5, in which the
10 abutment (17) comprises a recess (19) formed in its plane and adapted to receive the bulge, resulting during filling of the duct (7) with gas, of at least one side wall (2).

17. A device as claimed in claim 5, in which the
15 abutment (17) is made of a material with low thermal conductivity.

18. A device as claimed in claim 5, in which the abutment (17) comprises cooling means.

19. A container blank (10) intended for a container
20 (1) of a collapsible type, said container blank (10) comprising a duct (7) which is intended to be filled with gas and which is defined by two opposite side walls (2) which are joined along a common connecting portion (4), characterised in that the duct (7) comprises
25 a first segment (12) which after gas filling provides a geometry desired in the container (1);

30 a second segment (13) adjoining the first segment (12), said second segment (13) having a significantly smaller cross-sectional area than the first segment (12); and

35 a third segment (14) adjoining the second segment (13) and comprising an inlet (15) to the duct (7).

20. A container blank as claimed in claim 19, in which the inlet (15) is a hole (35) formed in one side
35 wall (2).

21. A container blank as claimed in claim 19, in which the third segment (14) is arranged in connection

with a duct means (8) of the container blank (10), through which duct means (8) the container blank is adapted to be filled with its contents.